

AIDS

THE ROCKEFELLER UNIVERSITY

pro bono humanis generis

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OFFICE OF THE PRESIDENT

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Dr. Anthony Fauci
Director, NIAID
NIH, Bethesda, MD

Dear Dr. Fauci:

I very much appreciate your article in Science last week.

Perhaps you are the one to ask: is there any evidence from cell culture that X-ray or cytotoxic drugs can rekindle virus production in cells which have integrated HIV? That is a plausible expectation from the induction of prophage in bacteria. If substantiated it has telling implications for the importance of testing hospital admissions for HIV.

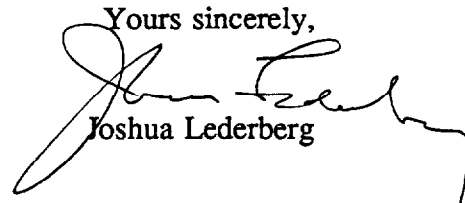
Along the same lines, I am concerned whether we may be (substantially?) underestimating the number of infected individuals. Small doses of HIV may well lead to non-productive infections that remain latent almost indefinitely, exhibiting neither seroconversion nor detectable virus until reactivated. It is not clear how one would discern this. Perhaps one could take cell samples from sexual partners of HIV+ males, study them longitudinally until transmission has become manifest; then aggressively look for viral genomes in the earliest samples.

Finally, I am sure you share my discomfort that our pronouncements about how HIV is transmitted are based on empirical resumes rather than a clear understanding of the barriers. Needless to say, our current management policies should be informed by that empirical (epidemiological) evidence. But our research ought to be guided more than is obvious now by the quest for other tricks that HIV may have up its sleeve. In view of the intractability of the infection, airborne transmission would be the worst nightmare. Is the exhalation of HIV from terminal pneumonias being looked at? Do we know what the further barriers would then be? (All apart from the ongoing evolution of the virus.) I've tried to get Ron Crystal to take an interest in this, with no obvious impact.

I've been loath (for reasons you would encourage) to "go public" with these perspectives: there is altogether too much hysteria in some quarters. Your article was superb in offering a reasoned and hardly too complacent overview.

I am delighted (for both your sakes) that Peggy Hamburg will be working with you.

Yours sincerely,


Joshua Lederberg

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